

Science Class-VI Chapter-7 Properties of matter and external effect Subject teacher- Syeeda Sultana Lecture sheet with worksheet-2 Date-19.10.2020

<u>Metals</u>

A metal is an element that is shiny, malleable, ductile and conducts electricity and heat.



Malleability

Malleability is the property of metals which allows it to be hammered into thin sheets (without breaking)





Ductility

Ductility is the property of metals which allows it to be stretched into thin wires (without breaking)





Thermal conductivity of metals

Metals are usually good conductors of heat. When we heat an end of a piece of metal, we will find that the other end is also getting warm fast. It means, metals are heat conductors. The reason is the free electrons which move freely in solid metal. When heat is applied, these electrons receive energy and increase their kinetic energy and velocity. They rush from the heated end towards the comparatively cooler end. Thus, heat is conducted in a metal.

Exercise-1



- 1. Compare the heat conductivity of the above two matters.
- 2. Why are all metals good heat conductor?
- 3. Why is aluminium used for preparing cooking utensils?
- 4. What is meant by malleability and ductility?
- 5. Metals can conduct heat.—prove it experimentally.